Revisiting the Naval Power: Are navies redundant in an age of aircraft and missiles?

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Introduction

Twenty-six centuries ago, Themistocles claimed, “He who commands the sea has command of everything”, nonetheless in the present time such beliefs appear to have lost their grounds. Since the beginning of times the seas have been the most important highway for trade, a giant source of food, the main supplier of oil, minerals and of course mankind’s freeway for transporting armed forces. To command the seas, one needs vessels, however in this age of aircrafts and missiles what can a naval force do to sustain its power? In such a world mandated by technological revolutions, the navy may seem puny, slow and vulnerable, almost superfluous when compared to modern day airpower capabilities, the reality however is poles apart from it.

Such simplistic vision needs to be repudiated instead one should argue in favor of a multiroled and multitasked naval force, able to drain its values from the usage of the sea and from the synergies that joint forces operations emulate. The paper will start by exploring the Second World War land-centric strategies exposing their failures, therefore demonstrating the undeniable value of sea power. Secondly, the Cold War period will be analysed, dissecting the roles and functions of a new reinvented naval force capable of facing nuclear aggressions and able to readapt to changing strategic problems. Conclusively, as a result of the sea power last experiences, the modern aircraft carrier emerges as the “jewel of the crown” of the modern navy, enabling strategic assets never before explored.

Part I – The incomplete Mahanian sea power vision

The chapters of human history are filled with struggles between swords and shields, offensives and defenses, where occasionally by skill or technological improvements one outflanks the other. After the latest geographical discoveries of the early twentieth century, Sir Halford Mackinder argued, in 1919, that the world had become for the first time, a "closed system"[1]. This eminent British geographer illustrated that "there is no longer elasticity of political expansion beyond the pale"[2], underscoring that territorial expansions could only be given through the use of force despite the presumption of legal equality among sovereign states, as complemented by Cohen[3]. In this profoundly interconnected and interdependent world, every shock or crisis is felt throughout the entire globe. Any political, economical or physical attempts to alter elements of this system may result in the destabilization of the balance of power in the world. Although some of these points might be fair, Mackinder paid no heed to the importance of the seas; his views of geostrategy were merely based on the control of landmasses, immortalized in his most famous dictum:

"Who rules Eastern Europe commands the Heartland;

Who rules the Heartland commands the World-Island;

Who rules the World-Island commands the World[4]."

Sea warfare was not Mackinder's main concern, greatly due to the fact that in his time, the source of richness and wealth was located on the mainland. The great sprout of technological innovations that characterized the First World War and the interwar period, emulated the construction of railway networks, promoted the development on heavy artillery and, of course, initiated the emergence of wider and more capable aircrafts, that so profoundly influenced Mackinder's generation of thinkers. By this point, it is true that the submarine already existed, however this vehicle was a target of great debate and until the interwar period it did not convinced the military ranks. In 1914, the British Admiral William Henderson, had this to say about submarines, "even if a submarine should work by a miracle, it will never be used. No country in this world would ever use such a vicious and petty form of warfare!"[5], an observation latter regretted. Mackinder was a land-centric geostrategist and like many in his time, he believed that 'true victory' could not be achieve by a maritime grand strategy, rather only a well supported ground force could dominate the "world island and its satellites"[6]. What Mackinder did not ignore was the fundamental role that the navy held during WW I, that using close and distant blockades on ports and lines of communications (LOC), as well as gunboat diplomacy, they have seriously weaken the enemy states and won several

strategic victories. Ultimately, like Cruttwell asserted, “although the war was won as the direct consequence of an unexampled series of land battles, it was profoundly true that this result was attained only through the conduct of the war at sea”[7].

On a different note, Sir Walter Raleigh held “he that commands the sea, commands the trade, and he that is Lord of the trade of the world is lord of the wealth of the world”[8]. Which later Alfred Thayer Mahan, immortalized by concluding, “control of the sea by maritime commerce and naval supremacy means predominant influence in the world (…) [and] is the chief among the merely material elements in the power and prosperities of nations”[9]. By ‘command of the sea’, Mahan implicated the denial of the enemy to use it, and to do that he alleged the destruction of the enemy fleet through swift attacks in a single encounter, a ‘decisive naval confrontation’[10].

Unfortunately for him, his theories started to be abandoned soon after WW II, much due to the following factors: (1) Naval superiority by itself does not offer the command of the sea’, states began to understand that the sea was simply too vast to be controlled through LOC; (2) Mahan based his vision on mercantilist theories, defining a trinity of ‘commerce, colonies and bases’, an economic perspective soon abandoned after Adam Smith’s ‘free trade’ theory came into light; (3) The Mahanian concept that ‘communications dominates the seas’, was not exclusively true anymore, the sea provided very important strategic assets, firstly as a projector of power over the shores and secondly the sea is a realm of great mineral resources unable to be fully controlled; (4) Finally, this flag officer mistreated the topic of ‘privateer war’ and irregular warfare. Mahan thought of sea power as a self-supporting ‘recipe’ for grand strategy, when, in the end, history has proved him wrong. In this respect, Professor Colin S. Gray asserts, “sea power does not have strategic effect as an independent tool of war (…) [t]he Central Powers could be defeated on land in critical part because they failed to find a maritime strategy which could deny the exercise of command at sea to the Allies”[11]. There is much more to say about sea power, than what Mahan coined, and in this regard the First Sea Lord Admiral Sir Jacky Fisher stressed that, “the Fleet did not exist merely to win battles – that was the means not the ends”[12]. Again Professor Gray claims, “sea power is a leverage for victory”[13], which alone cannot control the vastness of the sea and difficultly win a war by itself. This is why the navy should embrace other military services, as Gray stresses “sea power, land power and air power are partners rather than foes. Each needs the others if success in war is to be achieved”[14].

Part II – Call for Jointness

Already during WW II, there were clear evidences of joint forces operations, boldly underscored by Lieutenant General. Lesley McNair, when he argued that, “(…) all classes

of combat aviation of the Army Air Forces must be trained and indoctrinated in performance of the Air Force mission, and in support of the ground and naval forces"[15]. But what Mackinder designed, in 1943, was slightly different; this geographer envisioned a holistic framework from which a global joint force structure could shape a grand strategy to reach victory[16]. The end of the Second World War marked as well the conclusion of the era of the naval battleship supremacy, thus demising an age of unidimensional strategies and truly giving birth to a gradual evolution of the complexity of joint-forces operations.

The emergence of the Cold War, the nuclear revolution and supersonic aircrafts, made naval theorists tend to abandoned the sea-centric Mahanian strategies, turning more to Corbett's maritime strategy, henceforth recognising the importance of joint operations between air, land and naval forces[17]. In such an age, the concept of 'command of the sea' was reformed and instead a new milestone was adopted – sea control – a terminology that intended "to connote more realistic control in limited areas and for limited periods of time (…)"[18].

During the first years of the Cold War the need for navies was brought into question, due to two main arguments: a) the fact that the navy would be rendered inefficient if attacked by aircrafts when defending LOC; b) and the undeniable truth that no naval vessel could possibly face the threat of a nuclear aggression alone and thus making the navy simply redundant. Regarding the first argument, as early as 1934, Admiral Sir Herbert Richmond asserted that aircrafts were "instruments of sea power; weapons employed at sea for the purpose of disputing the control of the sea which is the object of sea power"[19], moreover "there is far less danger to shipping from the air than from surface vessels"[20]. Richmond brilliantly underscored that.

In those same areas in which an air flotilla can operate, surface flotillas can operate with far greater effect; and they can do so not merely in accordance with custom and humanity, but in all weathers and for a full twenty-four hours of the day[21].

Now concerning the second argument, Professor Heuser asserts that "in such a context it was really only nuclear-powered submarines with nuclear missiles (SSBN) that gave navies a role"[22]. Although this might be a fair point, Vice Admiral Sir Peter Gretton underscored that in the eventuality of such a doomsday scenario "the role of naval forces would be that of relief and rescue only"[23], a job that submarines alone could not do, thus revealing more than meets the eye. For all these reasons, strategists used the model of 'sea control' to reengineer a new concept of naval strategy, one that in communion with ground and air services could be capable of putting up a solid deterrence (by punishment or denial) against a full-fledged nuclear assault[24]. Against a scenario of Total War, Bernard Brodie proposed the deployment of conventional forces, in order to trip-wire the enemy and force him to respond within the same level of violence[25], therefore deterring him of using a nuclear aggression[26]. But even with a modern naval strategy theory, the vessels, due to their nature, seem quite vulnerable to missile attacks and that explains why Norman Friedman emphasizes "a key issue is how well the ship can adapt to

changes during its life"[27]. To counter missiles attacks, Friedman suggests that the "emphasis is on either destroying the weapon in flight or diverting it from its target into a decoy"[28].

Friedman carry on arguing that larger ships can have greater capacity to defend itself, either by supporting long-range radars, better defensive equipment or by supporting more powerful jammers and decoys[29].

In this – not so simple – strategic chessboard, the naval forces assume a multitude of different roles. Ken Booth defined the naval functions as a 'trinity', "three characteristics modes of action by which navies carry out their purposes: namely the military, the diplomatic and the policing functions"[30]. The military role is *per se* the navy's main function; all naval forces are primarily designed to accomplish certain missions, such as, "strategic deterrence (power projection), coast defence (sea denial), *guerre de course* (sea denial) and defending shipping (sea control)…"[31]. The diplomacy role is as old as the first seafaring adventures in ancient Greece; the diplomatic relations have always been associated with LOC between countries. Both divided this role in 'gunboat diplomacy' as the "use of threat of limited naval force other than as an act of war"[32], as well as 'showing the flag', which Cable identified as being a "general reminder to foreigners of the existence of the navy concerned"[33].

Lastly, Both acknowledged that the usage of the seas allows the navy to have a constabulary role; the navy could maintain national sovereignty, safeguarding national resources and of course preserve international peacekeeping.

From all the services of the armed forces, only the navy is capable of a 'shape-shifting', transmutation of roles essential as leverage to victory for any strategy, on any situation. Although ground forces can pursuit diplomatic roles, project power over lands, control, deny and police cities and territories, they are not able of carrying them all out at the same time. Furthermore,

Naval forces can appear without local consent, and can leave without dramatic loss of face. Anything else – ground-based air forces or armies – requires either extensive negotiations or the seizure of operating areas, with attendant major political costs[34].

The use of the air is acknowledged as an asset of extremely importance to every mission but air power loses in roles to sea power. Aircrafts, due to their nature (as previously discussed) are unable of patrolling continuously the sky during long periods of time; they are incapable of sustaining a presence and they proved ineffective when transporting large forces of manpower to the theatre of operations.

In the age of missiles and aircrafts, there is no better example to explore the importance of the multiroled naval forces, than its flagship, the aircraft carrier. The British Royal Navy, introduced for the first time in 1918, a flat top vessel capable of launching and landing aircrafts, under the name of HMS Argus. Since then, the British strategic function grew exponentially and now aircraft carriers integrate the most powerful naval

formation on the seas. Unlike the common belief that the carrier is an easy-target, Friedman asserts that,

> "In Western navies at least, the basic tactical units of seapower are not individual ships or aircraft, but rather organic, mutually supporting combination: carrier battle groups, surface action groups, escort groups, underway replenishment groups, amphibious ready groups[35]."

Far from the condition of an 'easy-target', the "carrier battle group uniquely offers heavy sustained offensive and defensive firepower (…) thus carrier aircraft can sustain their attacks as long as the enemy's air defenses are suppressed"[36]. The aircraft carrier is indeed a unique vessel, one that emerges as an absolute bastion for joint-operations, concentrating in its own essence the very best of both worlds: 'sea control' and 'air superiority'. The combination of these two assets enables a very effective support for the amphibious force groups and offers a "long tactical reach, because [the carrier] supports aloft sensors, usually by using onboard E-2C radar early warning aircraft"[37]. Friedman points out that, "an enemy facing a carrier will probably try to deal with her. The carrier's ability to draw out the most capable enemy aircraft (and other anti-ship assets, such as submarines) and to deal with them becomes a very valuable feature"[38]. Much due to the fact that the carrier is always inserted in its own battle group, which means that its escort will be waiting for the enemy's attack with great readiness. Even in mobility the aircraft carrier proves to be an excelsior naval vessel. Capable of bypassing land-based airport's limitations, bringing not only the aircrafts closer to the targets but the own country as well, because the carrier is 'sovereign territory', always assuming the role of a nation's base on sea. Although there are many arguments against such national investments, Friedman brilliantly argues: "yes, carriers are expensive, and yes they can be sunk (though with inordinate difficulty) – but nothing else on land or sea offers what they offer, and what they provide is absolutely essential"[39].

Interestingly, in 2006, Vice Admiral John G. Morgan published an article where he sustained the need for a creation of a 'Navy of Navies', a concept certainly inspired on Admiral William Owens' 'System of Systems' (SoS). Appealingly enough, Morgan explores the issues of piracy and transnationalisation of crime, advising on the urgency to ensure, "that the lifeblood of globalization – trade – flows freely and unencumbered"[40]. To achieve this aim and increase the efficiency of future conflict resolution, Morgan suggests the engineering of a simple, flexible and self governing 'network of navies'[41]. This ingenious idea would require an incredible global effort that undoubtedly would serve the interests of many, but this would also require the adoption of C4ISR[42] military architectures. Something that many countries would be unwilling to accept. Morgan finishes by saying that "the global maritime network supported by the Navy of Navies will tie together the collective capabilities of free nations and establish a secure maritime domain worldwide"[43], which ironically sounds like a Mahanian *revanche*. Either way, the future seems to secure an increase role of the navy in all dimensions of human life.

Conclusion

Redundancy is the state of being no longer needed or useful, and in this increasingly strategic world we are living today, there are no such things as a superfluous service of the armed forces or an unneeded instrument of power, independently of their dimension or role, everything matters.

The navy demonstrated to be a great leverage for victory during WW I and WW II, when land-centric grand strategies dominated warfare. Mackinder himself, stunned by the chain of events, realized the potential of dedicated joint forces operations, capable of offsetting their own limitations and counter efficiently the enemies. In this first era of airpower the navy stood tall, 'fearless of the terror from above', and during the Cold War, when everyone thought that aircrafts and missiles would suppress sea power, the navy surprised once again, adapting itself to the changing times. Based on a 'sea control' strategy, the naval forces re-discovered their roles as military weapons, diplomatic actors, while policing 'blue and brown waters'.

The navy, as a 'trip-wire', assumed a credible and efficient deterrence role, one that missiles or even airpower never could have taken on. As the world move away from the conflicts of the Cold War, the chapter of conventional warfare is probably reaching its end. In the future, unpredictable events will most certainly require high levels of readiness and delivery rates that only a joint task force can assume. The aircraft carrier, as the flagship of any navy, emerges as a monument to the weightiness of joint operations, which ultimately proves the importance of the sea in the era of aircrafts and missiles. Concerning the prospect of naval forces, "Sea power, in short, has a sound and secure future"[44].

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[1] Mackinder, Halford: *Democratic Ideals and Reality*, (London: Faber and Faber, 2009), p. 29.

[2] *Democratic Ideals and Reality,* p. 29.

[3] Cohen, Saul B.: *Geopolitics, the Geography of International Relations*, (Boston: Rowman and Littlefield Publishers, 2009), p.16.

[4] *Democratic Ideals and Reality,* p. 150.

[5] q.i.: Ward, Laura*: Famous last words: the ultimate collection of finales and farewells*, (New York: Sterling, 2004.), p. 250.

[6] *Democratic Ideals and Reality,* p. 69.

[7] q.i.: Gray, Colin S.: *The leverage of sea power* (New York: Free Press, 1992), p. 174.

[8] q.i.: Till, Geoffrey: *Sea Power*, (London: Frank Cass Publishers, 2004), p. 17.

[9] q.i.: *Sea Power*, p. 17.

[10] Mahan, following the Jominian theories, rejected the division of forces because he saw the oceans as one, and due to this Mahan theorized that the naval power should be as well centralized in one 'decisive battle'.

[11] *The leverage of sea power*, p. 178.

[12] q.i.: *Sea Power*, p. 63.

[13] *The leverage of sea power*, p. 278.

[14] *The leverage of sea power*, p. 281.

[15] q.i.: Mortensen, Daniel R.: *A Pattern For Joint Operations: World War II Close Air Support, North Africa* (Washington, D.C.: Office of Air Force History and U.S. Army Center of Military History, 1987), p. 15.

[16] In 1943 Mackinder, when in the face of the shadow of the German *blitzkrieg* revoked his land centric theories and suggested an alliance between France, Britain and the U.S. (plus Canada). In which France for being a land power, should fulfill the role of defending the mainland, Britain as an island should become an air base, the U.S.A. and Canada for

being in the rear of the conflict, should serve their mission by becoming a reserve of manpower, industry, food and ultimately sea power.

[17] Heuser, Beatrice: *The Evolution of Strategy* (Cambridge: Cambridge University Press, 2010), p. 275.

[18] *The Evolution of Strategy,* p. 274.

[19] Richmond, Herbert: *Sea power in the modern world* (Cambridge: University Press of Cambridge, 1934), p. 117.

[20] *Sea power in the modern world,* p. 117.

[21] *Sea power in the modern world,* p. 117.

[22] *The Evolution of Strategy, p. 293.*

[23] Gretton, Peter: *Maritime Strategy* (London: Cassel & Company, 1965), p. 97.

[24] On the subject of naval deterrence, Geoffrey Till, asserts that it can come in two forms: "general, passive and implicit", and "specific, active and explicit": *Sea Power*, p. 292-293.

[25] *The Evolution of Strategy, p. 362.*

[26] It would be illogical for the enemy to use nuclear missiles against conventional forces, such action would spark a nuclear counterstrike that would certainly mutual destroy all parties involved in the conflict.

[27] Friedman, Norman: *Seapower as strategy* (Annapolis: Naval Institute Press, 2001), p. 244.

[28] *Seapower as strategy,* p. 250.

[29] *Seapower as strategy,* p. 250.

[30] q.i.: Grove, Eric: *The future of sea power* (Annapolis: Naval Institute Press, 1990), p. 233.

[31] *The future of sea power,* p. 233.

[32] *The future of sea power,* p. 194.

[33] q.i.: *The future of sea power,* p. 194.

[34] "The Carrier: A US View", in *RUSI Defence Systems* Vol. 9, No. 1 (July 2006), p. 41.

[35] *Seapower as strategy,* p. 239.

[36] *Seapower as strategy,* p. 256.

[37] *Seapower as strategy,* p. 257.

[38] "The Carrier: A US View", in *RUSI Defence Systems* Vol. 9, No. 1 (July 2006), p. 42.

[39] "The Carrier: A US View", in *RUSI Defence Systems* Vol. 9, No. 1 (July 2006), p. 42.

[40] "A Navy of Navies", in *RUSI Defence Systems* Vol. 9, No. 1 (July 2006), p. 66.

[41] "A Navy of Navies", in *RUSI Defence Systems* Vol. 9, No. 1 (July 2006), p. 67: A network of navies, that similarly to the SoS, may be composed by millions of sensors that through a complex process of 'data fusion' allows the creation of a dominant battlespace knowledge (DBK), that significantly shortens the decision-making process to seconds.

[42] C4ISR: Command, Control, Computers, Communications, Intelligence, Surveillance and Reconnaissance.

[43] "A Navy of Navies", in *RUSI Defence Systems* Vol. 9, No. 1 (July 2006), p. 68.

[44] *The future of sea power,* p. 241.